Form PTO-1449 Modified ed by Applicant (Use several sheets if necessary) List of Patents and Publications U.S. Department of Commerce Patent and Trademark Office FILING **DOCKET NO.:** APPLICANT: Chisari et al. SERIAL NO.: **GROUP:** DATE: 329368-101A 08/854,825 May 12, 1813 1997 **U.S. PATENT DOCUMENTS EXAMINER** DOCUMENT DATE NAME CLASS **SUBCLASS** INITIAL NO. 1 4,565,697 01/21/86 Ohmura et al. 424 89 2 4,599,230 07/08/86 424 89 Milich et al. 3 4,559,231 07/08/86 Milich et al. 424 89 4 4,625,918 11/25/86 435 68 Hershberg 02/07/89 5 435 68 4,803,164 Hitzeman et al. 424 6 4,882,145 11/21/89 88 Thornton et al. 7 4,977,092 12/11/90 435 320 Bitter 8 5,017,558 05/21/91 Vyas 514 14 9 5,019,386 05/28/91 Machida et al. 424 89 10 5,106,726 04/21/92 435 5 Wang 11 5,350,671 09/27/94 435 5 Houghton et al. 12 5,196,512 03-93 Bianchi et al. 530 326 13 4,690,915 09-87 514 2 Rosenberg P 14 5,372,928 12-94 435 5 Miyamura et al. FOREIGN PATENT DOCUMENTS **EXAMINER DOCUMENT** DATE **COUNTRY TRANSLATION** INITIAL NO. YES 15 0 154 902 09/18/85 **EPO** 16 0 291 586 11/23/88 **EPO** 1990 17 0 388 232 **EPO** 94/20127 18 1994 **PCT** 19 W093/00365 07/07/93 **PCT** 20 WO 95/27733 4-8-94 **PCT** 21 WO 95/12677 11-4-93 **PCT** 22 WO93/25575 12/23/93 **PCT** 22 0 463 848 A2 92 **EPA** DATE CONSIDERED @2 **EXAMINER**

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| Form PTO-1449 Modified List of Patents and Publications Cited by Assertant (Use several sheets if necessary) | | | | |
| U.S. Department of Commerce Patent and Trademark Office | | | | |
| Docket No.: | Applicant: Chisari et al. | | | |
| 329368-101A | | | | |
| Serial No.: 08/854,825 | Filing Date: May 12, 1997 Group: 1813 | | | |
| OTHER DOCUMENTS (I | ncluding Author, Title, Date, Pertinent Pages, Etc.) | | | |
| 7 1 | Aichele et al., "Antiviral Cytotoxic T Cell Response Induced by In Vivo Priming with a Free Synthetic Peptide," J. Exp. Med, 171, 1815-1820 (1990) | | | |
| 2 | Allen et al., "Identification of the T-cell and Ia contact residues of a T-cell antigenic epitope," Nature 327, 713-715 (1987) | | | |
| 3 | Alter, "Epidemiology of Community-acquired Hepatitis C," <u>Viral Hepatitis and Liver Disease</u> , pp. 410-413 (Hollinger et al., eds. (1991)) | | | |
| 4 | Bukh et al., "Importance of primer selection for the detection of hepatitis C virus RNA with the polymerase chain reaction assay," Proc. Natl. Acad. Sci. USA , 89 , 187-191 (1992) | | | |
| 5 | Carbone et al., "Induction of Cytotoxic T Lymphocytes by Primary In Vivo Stimulation with Peptides," <u>J. Exp. Med</u> ., <u>167</u> , 1767-1779 (1988) | | | |
| 6 | Cheng et al., "Hepatitis B Virus Large Surface Protein Is Not Secreted but Is Immunogenic when Selectively Expressed by Recombinant Vaccinia Virus," <u>J. Virol.</u> , <u>60</u> , 334-337 (1986) | | | |
| 7 | Choo et al., "Isolation of a cDNA Clone Derived from a Blood-Borne Non-A, Non-B Viral Hepatitis Genome," <u>Science</u> , <u>244</u> , 334-337 (1989) | | | |
| 8 | Choo et al., "Genetic organization and diversity of the hepatitis C virus," Proc. Natl. Acad. Sci. USA, 88, 2451-2455 (1991) | | | |
| 9 | Clerici et al., "Detection of Cytotoxic T Lymphocytes Specific for Synthetic Peptides of gp160 in HIV-Seropositive Individuals," <u>J. Imm.</u> , 146, 2214-2219 (1991) | | | |
| 10 | Deres et al., "In vivo priming of virus-specific cytotoxic T lymphocytes with synthetic lipopeptide vaccine," Nature, 342, 561-564 (1989) | | | |
| 11 | Dienstag, "Non-A, Non-B Hepatitis. I. Recognition, Epidemiology, and Clinical Features," <u>Gastroenterology</u> , <u>85</u> , 439-462 (1983) | | | |
| 12 | Falk et al., "Allele-specific motifs revealed by sequencing of self- peptides eluted from MHC molecules," Nature, 351, 290-296 (1991) | | | |
| EXAMINER DATE CONSIDERED 02 23 98 | | | | |

Form PTO-1449 Modified List of Patents and Publications City Applicant (Use several sheets if necessary) RADEM U.S. Department of Commerce 1 11 Patent and Trademark Office Docket No.: Applicant: Chisari et al. 329368-101A Serial No.: 08/854,825 Filing Date: May 12, 1997 Group: 1813 OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.) Guo et al., "Different length peptides bind to HLA-Aw68 similarly 13 at their ends but bulge out in the middle," Nature, 360, 364-366 (1992)Harty et al., "CD8+ T Cells Specific for a Single Nonamer Epitope 14 of Listeria Monocytogenes Are Protective In Vivo," J. Exp. Med., 175, 1531-1538 (1992) Houghton et al., "Molecular Biology of the Hepatitis C Viruses: 15 Implications for Diagnosis, Development and Control of Viral Disease," <u>Hepatology</u>, <u>14</u>, 381-388 (1991) Jansen et al., "Immunotoxins: Hybrid Molecules Combining High 16 Specificity and Potent Cytotoxicity," Immun. Rev., 62, 185-216 (1982)Jardetzky et al., "Identification of self peptides bound to purified 17 HLA-B27, Nature, 353, 326-329 (1991) Kast et al., "Protection against lethal Sendai virus infection by in 18 vivo priming of virus-specific cytotoxic T lymphocytes with a free synthetic peptide," Proc. Natl. Acad. Sci. USA, 88, 2283-2287 (1991)Koziel et al., "Intrahepatic Cytotoxic T Lymphocytes Specific for 19 Hepatitis C Virus in Persons with Chronic Hepatitis," J. Immunol., 149, 3339-3344 (1992) Lenzi et al., "Antibodies to hepatitis C virus in autoimmune liver 20 disease: evidence for geographical heterogeneity," Lancet, 338, 277-280 (1991) Maryanski et al., "Competitor Analogs for Defined T Cell Antigens: 21 Peptides Incorporating a Putative Binding Motif and Polyproline or Polyglycine Spacers," <u>Cell</u>, <u>60</u>, 63-72 (1990) Monaco, "A molecular model of MHC class-l-restricted antigen 22 processing," Immunol. Today, 13, 173-179 (1992) Mondelli et al., "Does the Immune Response Play a Role in the 23 Pathogenesis of Chronic Liver Disease?", Arch. Pathol. Lab. Med., 112, 489-497 (1988) Okamoto et al., "Typing hepatitis C virus by polymerase chain 24 reaction with type-specific primers: application to clinical surveys and tracing infectious sources," J. Gen. Virol., 73, 673-679 (1992)**EXAMINER** DATE CONSIDERED

| Form PTO-1449 Modified List of Patents and Publications Cited by Applicant (Use several sheets if necessary) U.S. Department of Commerce Patent and Trademark Office Docket No.: 329368-101A Serial No.: 08/854,825 Filing Date: May 12, 1997 Group: 1813 OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.) 25 Roitt et al., Immunology, 3d ed., 15.3-15.4 (1993) 26 Rothbard et al., "Interactions Between Immunogenic Peptides and MHC Proteins," Ann. Rev. Immunol., 9, 527-565 (1991) 27 Rötzschke et al., "Isolation and analysis of naturally processed viral peptides as recognized by cytotoxic T cells," Nature, 348, 252-254 (1990) 28 Rötzschke et al., "Suturally-occurring peptide antigens derived from the MHC class-restricted processing pathway," Immunol. Today, 12, 447-455 (1991) 29 Schumacher et al., "Peptide selection by MHC class I molecules," Nature, 350, 703-706 (1991) 30 Sette et al., "Structural characteristics of an antigen required for its interaction with Ia and recognition by T cells," Nature, 328, 335-399 (1987) 31 Takahasi et al., "Structural Requirements for Class I MHC Molecule-Mediated Antigen Presentation and Cytotoxic T Cell Recognition of an Immunodominant Determinant of the Human Immunodeficiency Virus Envelope Protein," J. Exp. Med., 170, 2023-2035 (1989) 32 Van Bleek et al., "Solation of an endogenously processed immunodominant viral peptide from the class I H-2K benote immunodominant viral peptide from the class I H-2K benote immunodominant viral peptide from the class I H-2K benote immunodominant viral peptide from the class I H-2K benote immunodominant viral peptide from the class I H-2K benote immunodominant viral peptide from the class I H-2K benote immunodominant viral peptide from the class I H-2K benote immunodominant viral peptide from the class I H-2K benote immunodominant viral peptide from the class I H-2K benote immunodominant viral peptide from the class I H-2K benote immunodominant viral peptide from the class I H-2K benote immunodominant viral peptide from | | | THE THOUGHT | Sheet 3 of 5 | | |
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| Patent and Trademark Office Docket No.: 329368-101A Serial No.: 08/854,825 Filing Date: May 12, 1997 Group: 1813 OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.) 25 Roitt et al., Immunology, 3d ed., 15.3-15.4 (1993) 26 Rothbard et al., "Interactions Between Immunogenic Peptides and MHC Proteins," Ann. Rev. Immunol., 9, 527-565 (1991) 27 Rötzschke et al., "Isolation and analysis of naturally processed viral peptides as recognized by cytotoxic T cells." Nature, 348, 252-254 (1990) 28 Rötzschke et al., "Naturally-occurring peptide antigens derived from the MHC class-I-restricted processing pathway," Immunol. Today, 12, 447-455 (1991) 29 Schumacher et al., "Peptide selection by MHC class I molecules," Nature, 350, 703-706 (1991) 30 Sette et al., "Structural characteristics of an antigen required for its interaction with la and recognition by T cells," Nature, 328, 395-399 (1987) 31 Takahasi et al., "Structural Requirements for Class I MHC Molecule-Mediated Antigen Presentation and Cytotoxic T Cell Recognition of an Immunodeficiency Virus Envelope Protein," J. Exp. Med., 170, 2023-2035 (1989) 32 Van Bleek et al., "Isolation of an endogenously processed immunodeficiency Virus Envelope Protein," J. Exp. Med., 170, 2023-2035 (1989) 33 Cerny et al., "Cytotoxic T Lymphocytes Restricted by HLA-A2 Specific for Hepatitis C Virus (HCV) Derived Peptides Are Present In The Peripheral Blood of Patients With Chronic Hepatitis C.," J. Cell. Biochem., Supp. 170, 64 (1993) 34 Cerny et al., "Cytotoxic T Lymphocyte Response to Hepatitis C.," J. Cell. Biochem., Supp. 170, 64 (1993) 35 Ching et al., "Interaction of immune sera with synthetic peptides corresponding to the structural protein region of hepatitis C virus," Proc. Natl. Acad. Sci. USA, 89, 3190-3194 (1992) Kawahara et al., "Synthetic peptide antigens for detection of hepatitis C virus," (HCV) antibody, its composition, and method for using it," Amino Acids, Peptides, Proteins, 117, 1013 (1992) | Form PTO-1449 Modified | | | | | |
| Serial No.: 08/854,825 Filing Date: May 12, 1997 Group: 1813 OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.) 25 Roitt et al., Immunology, 3d ed., 15.3-15.4 (1993) 26 Rothbard et al., "Interactions Between Immunogenic Peptides and MHC Proteins," Ann. Rev. Immunol., 9, 527-565 (1991) 27 Rötzschke et al., "Isolation and analysis of naturally processed viral peptides as recognized by cytotoxic T cells," Nature, 348, 252-254 (1990) 28 Rötzschke et al., "Naturally-occurring peptide antigens derived from the MHC class-I-restricted processing pathway," Immunol. Today. 12, 447-455 (1991) 29 Schumacher et al., "Peptide selection by MHC class I molecules," Nature, 350, 703-706 (1991) 30 Sette et al., "Structural characteristics of an antigen required for its interaction with la and recognition by T cells," Nature, 328, 395-399 (1987) 31 Takahasi et al., "Structural Requirements for Class I MHC Molecule-Mediated Antigen Presentation and Cytotoxic T Cell Recognition of an Immunodominant Determinant of the Human Immunodeficiency Virus Envelope Protein," J. Exp. Med., 170, 2023-2035 (1989) 32 Van Bleek et al., "Isolation of an endogenously processed immunodominant viral peptide from the class I H-2K b molecule," Nature, 348, 213-216 (1990) 33 Cerny et al., "Cytotoxic T Lymphocytes Restricted by HLA-A2 Specific for Hepatitis C Virus (HCV) Derived Peptides Are Present In The Peripheral Blood Of Patients With Chronic Hepatitis C, "J. Cell. Biochem., Supp. 17D, 64 (1993) 34 Cerny et al., "Cytotoxic T Lymphocyte Response to Hepatitis C, Cirus, Horsel, 17, 18, 18, 19, 19, 19, 19, 19, 19, 19, 19, 19, 19 | | | | | | |
| Serial No.: 08/854,825 Filing Date: May 12, 1997 Group: 1813 OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.) Roitt et al., Immunology, 3d ed., 15.3-15.4 (1993) 26 Rothbard et al., "Interactions Between Immunogenic Peptides and MHC Proteins," Ann. Rev. Immunol., 9, 527-556 (1991) 27 Rötzschke et al., "Isolation and analysis of naturally processed viral peptides as recognized by cytotoxic T cells," Nature, 348, 252-254 (1990) 28 Rötzschke et al., "Naturally-occurring peptide antigens derived from the MHC class-I-restricted processing pathway," Immunol. Today, 12, 447-455 (1991) 29 Schumacher et al., "Eptide selection by MHC class I molecules," Nature, 350, 703-706 (1991) 30 Sette et al., "Structural characteristics of an antigen required for its interaction with 1a and recognition by T cells," Nature, 328, 395-399 (1987) 31 Takahasi et al., "Structural Requirements for Class I MHC Molecule-Mediated Antigen Presentation and Cytotoxic T Cell Recognition of an Immunodominant Determinant of the Human Immunodeficiency Virus Envelope Protein," J. Exp. Med., 170, 2023-2035 (1989) 32 Van Bleek et al., "Isolation of an endogenously processed immunodominant viral peptide from the class I H-2K* molecule," Nature, 348, 213-216 (1990) 33 Cerny et al., "Cytotoxic T Lymphocytes Restricted by HLA-A2 Specific for Hepatitis C Virus (HCV) Derived Peptides Are Present In The Peripheral Blood Of Patients With Chronic Hepatitis C.," J. Cell. Biochem., Supp. 170, 64 (1993) 34 Cerny et al., "Cytotoxic T Lymphocyte Response to Hepatitis C Virus-derived Peptides Containing the HLA A2.1 Binding Motif," J. Cell. Biochem., Supp. 170, 64 (1993) 35 Ching et al., "Interaction of immune sera with synthetic peptides corresponding to the structural protein region of hepatitis C virus, (HCV) antibody, its composition, and method for using it," Amino Acids, Peptides, Proteins, 112, 1013 (1992) | Docket No.: | | Applicant: Chisari et al. | | | |
| OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.) Roitt et al., Immunology, 3d ed., 15.3-15.4 (1993) 26 Rothbard et al., "Interactions Between Immunogenic Peptides and MHC Proteins," Ann. Rev. Immunol., 9, 527-556 (1991) 27 Rötzschke et al., "Isolation and analysis of naturally processed viral peptides as recognized by cytotoxic T cells," Nature, 348, 252-254 (1990) 28 Rötzschke et al., "Naturally-occurring peptide antigens derived from the MHC class-I-restricted processing pathway," Immunol. Today, 12, 447-455 (1991) 29 Schumacher et al., "Peptide selection by MHC class I molecules," Nature, 350, 703-706 (1991) 30 Sette et al., "Structural characteristics of an antigen required for its interaction with Ia and recognition by T cells," Nature, 328, 395-399 (1987) 31 Takahasi et al., "Structural Requirements for Class I MHC Molecule-Mediated Antigen Presentation and Cytotoxic T Cell Recognition of an Immunodominant Determinant of the Human Immunodeficiency Virus Envelope Protein," J. Exp. Med., 170, 2023-2035 (1989) 32 Van Bleek et al., "Isolation of an endogenously processed immunodominant viral peptide from the class I H-2K" molecule," Nature, 348, 213-216 (1990) 33 Cerny et al., "Cytotoxic T Lymphocytes Restricted by HLA-A2 Specific for Hepatitis C Virus (HCV) Derived Peptides Are Present In The Peripheral Blood Of Patients With Chronic Hepatitis C," J. Cell. Biochem., Supp., 170, 64 (1993) 34 Cerny et al., "Cytotoxic T Lymphocyte Response to Hepatitis C Virus-derived Peptides Containing the HLA A2.1 Binding Motif," J. Ching et al., "Interaction of immune sera with synthetic peptides corresponding to the structural protein region of hepatitis C virus," Proc. Natl. Acad. Sci. USA, 89, 3190-3194 (1992) Kawahara et al., "Synthetic peptide antigens for detection of hepatitis C virus (HCV) antibody, its composition, and method for using it," Amino Acids, Peptides, Proteins, 112, 1013 (1992) | 329368-101A | | | | | |
| Rottbard et al., "Interactions Between Immunogenic Peptides and MHC Proteins," Ann. Rev. Immunol., 9, 527-565 (1991) Rötzschke et al., "Isolation and analysis of naturally processed viral peptides as recognized by cytotoxic T cells," Nature, 348, 252-254 (1990) Rötzschke et al., "Naturally-occurring peptide antigens derived from the MHC class-I-restricted processing pathway," Immunol. Today, 12, 447-455 (1991) Schumacher et al., "Peptide selection by MHC class I molecules," Nature, 350, 703-706 (1991) Sette et al., "Structural characteristics of an antigen required for its interaction with Ia and recognition by T cells," Nature, 328, 395-399 (1987) Takahasi et al., "Structural Requirements for Class I MHC Molecule-Mediated Antigen Presentation and Cytotoxic T Cell Recognition of an Immunodominant Determinant of the Human Immunodeficiency Virus Envelope Protein," J. Exp. Med., 170, 2023-2035 (1989) Van Bleek et al., "Isolation of an endogenously processed immunodominant viral peptide from the class I H-2K benolecule," Nature, 348, 213-216 (1990) 33 Cerny et al., "Cytotoxic T Lymphocytes Restricted by HLA-A2 Specific for Hepatitis C Virus (HCV) Derived Peptides Are Present In The Peripheral Blood of Patients With Chronic Hepatitis C," J. Cell. Biochem., Supp. 17D, 64 (1993) 34 Cerny et al., "Cytotoxic T Lymphocyte Response to Hepatitis C Virus-derived Peptides Containing the HLA A2.1 Binding Motif," J. Clin. Invest., 95, 521-530 (1995) 35 Ching et al., "Interaction of immune sera with synthetic peptides corresponding to the structural protein region of hepatitis C virus," Proc. Natl. Acad. Sci. USA, 89, 3190-3194 (1992) Kawahara et al., "Synthetic peptide antigens for detection of hepatitis C virus (HCV) antibody, its composition, and method for using it," Amino Acids, Peptides, Proteins, 117, 1013 (1992) | Serial No.: 08/854 | 4,825 | Filing Date: May 12, 1997 | Group: 1813 | | |
| 26 Rothbard et al., "Interactions Between Immunogenic Peptides and MHC Proteins," Ann. Rev. Immunol., 9, 527-565 (1991) 27 Rötzschke et al., "Isolation and analysis of naturally processed viral peptides as recognized by cytotoxic T cells," Nature, 348, 252-254 (1990) 28 Rötzschke et al., "Naturally-occurring peptide antigens derived from the MHC class-I-restricted processing pathway," Immunol. Today, 12, 447-455 (1991) 29 Schumacher et al., "Peptide selection by MHC class I molecules," Nature, 350, 703-706 (1991) 30 Sette et al., "Structural characteristics of an antigen required for its interaction with la and recognition by T cells," Nature, 328, 395-399 (1987) 31 Takahasi et al., "Structural Requirements for Class I MHC Molecule-Mediated Antigen Presentation and Cytotoxic T Cell Recognition of an Immunodominant Determinant of the Human Immunodeficiency Virus Envelope Protein," J. Exp. Med., 170, 2023-2035 (1989) 32 Van Bleek et al., "Isolation of an endogenously processed immunodominant viral peptide from the class I H-2K * molecule," Nature, 348, 213-216 (1990) 33 Cerny et al., "Cytotoxic T Lymphocytes Restricted by HLA-A2 Specific for Hepatitis C Virus (HCV) Derived Peptides Are Present In The Peripheral Blood Of Patients With Chronic Hepatitis C, " J. Cell. Biochem., Supp. 17D, 64 (1993) 34 Cerny et al., "Cytotoxic T Lymphocyte Response to Hepatitis C Virus-derived Peptides Containing the HLA A2.1 Binding Motif," J. Clin. Invest., 95, 521-530 (1995) 35 Ching et al., "Interaction of immune sera with synthetic peptides corresponding to the structural protein region of hepatitis C virus," Proc. Natl. Acad. Sci. USA, 89, 3190-3194 (1992) 36 Kawahara et al., "Synthetic peptide antigens for detection of hepatitis C virus (HCV) antibody, its composition, and method for using it," Amino Acids, Peptides, Proteins, 117, 1013 (1992) | OTHER DOCUME | NTS (Inc | | | | |
| MHC Proteins," Ann. Rev. Immunol., 9, 527-565 (1991) Rötzschke et al., "Isolation and analysis of naturally processed viral peptides as recognized by cytotoxic T cells," Nature, 348, 252-254 (1990) Rötzschke et al., "Naturally-occurring peptide antigens derived from the MHC class-I-restricted processing pathway," Immunol. Today, 12, 447-455 (1991) Schumacher et al., "Peptide selection by MHC class I molecules," Nature, 350, 703-706 (1991) Sette et al., "Structural characteristics of an antigen required for its interaction with Ia and recognition by T cells," Nature, 328, 395-399 (1987) Takahasi et al., "Structural Requirements for Class I MHC Molecule-Mediated Antigen Presentation and Cytotoxic T Cell Recognition of an Immunodominant Determinant of the Human Immunodeficiency Virus Envelope Protein," J. Exp. Med., 170, 2023-2035 (1989) Van Bleek et al., "Isolation of an endogenously processed immunodominant viral peptide from the class I H-2K b molecule," Nature, 348, 213-216 (1990) Cerny et al., "Cytotoxic T Lymphocytes Restricted by HLA-A2 Specific for Hepatitis C Virus (HCV) Derived Peptides Are Present In The Peripheral Blood Of Patients With Chronic Hepatitis C," J. Cell, Biochem., Supp., 170, 64 (1993) Cerny et al., "Cytotoxic T Lymphocyte Response to Hepatitis C Virus-derived Peptides Containing the HLA A2.1 Binding Motif," J. Clin. Invest., 95, 521-530 (1995) Ching et al., "Interaction of immune sera with synthetic peptides corresponding to the structural protein region of hepatitis C virus," Proc. Natl. Acad. Sci. USA, 89, 3190-3194 (1992) Kawahara et al., "Synthetic peptide antigens for detection of hepatitis C virus (HCV) antibody, its composition, and method for using it," Amino Acids, Peptides, Proteins, 117, 1013 (1992) | 7 | 25 | Roitt et al., <u>Immunology</u> , 3d ed., 15.3-15.4 (1993) | | | |
| viral peptides as recognized by cytotoxic T cells," Nature, 348, 252-254 (1990) Rötzschke et al., "Naturally-occurring peptide antigens derived from the MHC class-I-restricted processing pathway," Immunol. Today, 12, 447-455 (1991) Schumacher et al., "Peptide selection by MHC class I molecules," Nature, 350, 703-706 (1991) Sette et al., "Structural characteristics of an antigen required for its interaction with Ia and recognition by T cells," Nature, 328, 395-399 (1987) Takahasi et al., "Structural Requirements for Class I MHC Molecule-Mediated Antigen Presentation and Cytotoxic T Cell Recognition of an Immunodominant Determinant of the Human Immunodeficiency Virus Envelope Protein," J. Exp. Med., 170, 2023-2035 (1989) Van Bleek et al., "Isolation of an endogenously processed immunodominant viral peptide from the class I H-2K benolecule," Nature, 348, 213-216 (1990) 33 Cerny et al., "Cytotoxic T Lymphocytes Restricted by HLA-A2 Specific for Hepatitis C Virus (HCV) Derived Peptides Are Present In The Peripheral Blood Of Patients With Chronic Hepatitis C," J. Cell. Biochem., Supp. 17D, 64 (1993) 34 Cerny et al., "Cytotoxic T Lymphocyte Response to Hepatitis C Virus-derived Peptides Containing the HLA A2.1 Binding Motif," J. Clin. Invest., 95, 521-530 (1995) 35 Ching et al., "Interaction of immune sera with synthetic peptides corresponding to the structural protein region of hepatitis C virus," Proc. Natl. Acad. Sci. USA, 89, 3190-3194 (1992) Kawahara et al., "Synthetic peptides antigens for detection of hepatitis C virus (HCV) antibody, its composition, and method for using it," Amino Acids, Peptides, Proteins, 117, 1013 (1992) | | 26 | | | | |
| from the MHC class-l-restricted processing pathway," Immunol. Today, 12, 447-455 (1991) 29 Schumacher et al., "Peptide selection by MHC class I molecules," Nature, 350, 703-706 (1991) 30 Sette et al., "Structural characteristics of an antigen required for its interaction with Ia and recognition by T cells," Nature, 328, 395-399 (1987) 31 Takahasi et al., "Structural Requirements for Class I MHC Molecule-Mediated Antigen Presentation and Cytotoxic T Cell Recognition of an Immunodominant Determinant of the Human Immunodeficiency Virus Envelope Protein," J. Exp. Med., 170, 2023-2035 (1989) 32 Van Bleek et al., "Isolation of an endogenously processed immunodominant viral peptide from the class I H-2K b molecule," Nature, 348, 213-216 (1990) 33 Cerny et al., "Cytotoxic T Lymphocytes Restricted by HLA-A2 Specific for Hepatitis C Virus (HCV) Derived Peptides Are Present In The Peripheral Blood Of Patients With Chronic Hepatitis C," J. Cell. Biochem., Supp. 17D, 64 (1993) 34 Cerny et al., "Cytotoxic T Lymphocyte Response to Hepatitis C Virus-derived Peptides Containing the HLA A2.1 Binding Motif," J. Clin. Invest., 95, 521-530 (1995) 35 Ching et al., "Interaction of immune sera with synthetic peptides corresponding to the structural protein region of hepatitis C virus," Proc. Natl. Acad. Sci. USA, 89, 3190-3194 (1992) 36 Kawahara et al., "Synthetic peptide antigens for detection of hepatitis C virus (HCV) antibody, its composition, and method for using it," Amino Acids, Peptides, Proteins, 117, 1013 (1992) | | 27 | viral peptides as recognized by cytotoxic T cells," Nature, 348, | | | |
| Nature, 350, 703-706 (1991) Sette et al., "Structural characteristics of an antigen required for its interaction with Ia and recognition by T cells," Nature, 328, 395-399 (1987) Takahasi et al., "Structural Requirements for Class I MHC Molecule-Mediated Antigen Presentation and Cytotoxic T Cell Recognition of an Immunodominant Determinant of the Human Immunodeficiency Virus Envelope Protein," J. Exp. Med., 170, 2023-2035 (1989) Van Bleek et al., "Isolation of an endogenously processed immunodominant viral peptide from the class I H-2K b molecule," Nature, 348, 213-216 (1990) Cerny et al., "Cytotoxic T Lymphocytes Restricted by HLA-A2 Specific for Hepatitis C Virus (HCV) Derived Peptides Are Present In The Peripheral Blood Of Patients With Chronic Hepatitis C," J. Cell. Biochem., Supp. 17D, 64 (1993) Cerny et al., "Cytotoxic T Lymphocyte Response to Hepatitis C Virus-derived Peptides Containing the HLA A2.1 Binding Motif," J. Clin. Invest., 95, 521-530 (1995) Ching et al., "Interaction of immune sera with synthetic peptides corresponding to the structural protein region of hepatitis C virus," Proc. Natl. Acad. Sci. USA, 89, 3190-3194 (1992) Kawahara et al., "Synthetic peptide antigens for detection of hepatitis C virus (HCV) antibody, its composition, and method for using it," Amino Acids, Peptides, Proteins, 117, 1013 (1992) | | 28 | from the MHC class-I-restricted processing pathway," Immunol. | | | |
| its interaction with Ia and recognition by T cells," Nature, 328, 395-399 (1987) 31 Takahasi et al., "Structural Requirements for Class I MHC Molecule-Mediated Antigen Presentation and Cytotoxic T Cell Recognition of an Immunodominant Determinant of the Human Immunodeficiency Virus Envelope Protein," J. Exp. Med., 170, 2023-2035 (1989) 32 Van Bleek et al., "Isolation of an endogenously processed immunodominant viral peptide from the class I H-2K b molecule," Nature, 348, 213-216 (1990) 33 Cerny et al., "Cytotoxic T Lymphocytes Restricted by HLA-A2 Specific for Hepatitis C Virus (HCV) Derived Peptides Are Present In The Peripheral Blood of Patients With Chronic Hepatitis C," J. Cell. Biochem., Supp. 17D, 64 (1993) 34 Cerny et al., "Cytotoxic T Lymphocyte Response to Hepatitis C Virus-derived Peptides Containing the HLA A2.1 Binding Motif," J. Clin. Invest., 95, 521-530 (1995) 35 Ching et al., "Interaction of immune sera with synthetic peptides corresponding to the structural protein region of hepatitis C virus," Proc. Natl. Acad. Sci. USA, 89, 3190-3194 (1992) 36 Kawahara et al., "Synthetic peptide antigens for detection of hepatitis C virus (HCV) antibody, its composition, and method for using it," Amino Acids, Peptides, Proteins, 117, 1013 (1992) | | 29 | | | | |
| Molecule-Mediated Antigen Presentation and Cytotoxic T Cell Recognition of an Immunodominant Determinant of the Human Immunodeficiency Virus Envelope Protein," J. Exp. Med., 170, 2023-2035 (1989) 32 Van Bleek et al., "Isolation of an endogenously processed immunodominant viral peptide from the class I H-2K be molecule," Nature, 348, 213-216 (1990) 33 Cerny et al., "Cytotoxic T Lymphocytes Restricted by HLA-A2 Specific for Hepatitis C Virus (HCV) Derived Peptides Are Present In The Peripheral Blood Of Patients With Chronic Hepatitis C," J. Cell. Biochem., Supp. 17D, 64 (1993) 34 Cerny et al., "Cytotoxic T Lymphocyte Response to Hepatitis C Virus-derived Peptides Containing the HLA A2.1 Binding Motif," J. Clin. Invest., 95, 521-530 (1995) 35 Ching et al., "Interaction of immune sera with synthetic peptides corresponding to the structural protein region of hepatitis C virus," Proc. Natl. Acad. Sci. USA, 89, 3190-3194 (1992) 36 Kawahara et al., "Synthetic peptide antigens for detection of hepatitis C virus (HCV) antibody, its composition, and method for using it," Amino Acids, Peptides, Proteins, 117, 1013 (1992) | | 30 | its interaction with Ia and recognition by T cells," Nature, 328, | | | |
| immunodominant viral peptide from the class I H-2K b molecule," Nature, 348, 213-216 (1990) 33 Cerny et al., "Cytotoxic T Lymphocytes Restricted by HLA-A2 Specific for Hepatitis C Virus (HCV) Derived Peptides Are Present In The Peripheral Blood Of Patients With Chronic Hepatitis C," J. Cell. Biochem., Supp. 17D, 64 (1993) 34 Cerny et al., "Cytotoxic T Lymphocyte Response to Hepatitis C Virus-derived Peptides Containing the HLA A2.1 Binding Motif," J. Clin. Invest., 95, 521-530 (1995) 35 Ching et al., "Interaction of immune sera with synthetic peptides corresponding to the structural protein region of hepatitis C virus," Proc. Natl. Acad. Sci. USA, 89, 3190-3194 (1992) 36 Kawahara et al., "Synthetic peptide antigens for detection of hepatitis C virus (HCV) antibody, its composition, and method for using it," Amino Acids, Peptides, Proteins, 117, 1013 (1992) | | 31 | Molecule-Mediated Antigen Presentation and Cytotoxic T Cell Recognition of an Immunodominant Determinant of the Human Immunodeficiency Virus Envelope Protein," J. Exp. Med., 170, | | | |
| Specific for Hepatitis C Virus (HCV) Derived Peptides Are Present In The Peripheral Blood Of Patients With Chronic Hepatitis C," J. Cell. Biochem., Supp. 17D, 64 (1993) 34 Cerny et al., "Cytotoxic T Lymphocyte Response to Hepatitis C Virus-derived Peptides Containing the HLA A2.1 Binding Motif," J. Clin. Invest., 95, 521-530 (1995) 35 Ching et al., "Interaction of immune sera with synthetic peptides corresponding to the structural protein region of hepatitis C virus," Proc. Natl. Acad. Sci. USA, 89, 3190-3194 (1992) 36 Kawahara et al., "Synthetic peptide antigens for detection of hepatitis C virus (HCV) antibody, its composition, and method for using it," Amino Acids, Peptides, Proteins, 117, 1013 (1992) | | 32 | immunodominant viral peptide from the class I H-2K b molecule," | | | |
| Virus-derived Peptides Containing the HLA A2.1 Binding Motif," J. Clin. Invest., 95, 521-530 (1995) 35 Ching et al., "Interaction of immune sera with synthetic peptides corresponding to the structural protein region of hepatitis C virus," Proc. Natl. Acad. Sci. USA, 89, 3190-3194 (1992) Kawahara et al., "Synthetic peptide antigens for detection of hepatitis C virus (HCV) antibody, its composition, and method for using it," Amino Acids, Peptides, Proteins, 117, 1013 (1992) | | 33 | Specific for Hepatitis C Virus (HCV) Derived Peptides Are Present In The Peripheral Blood Of Patients With Chronic Hepatitis C," J. | | | |
| corresponding to the structural protein region of hepatitis C virus," Proc. Natl. Acad. Sci. USA, 89, 3190-3194 (1992) Kawahara et al., "Synthetic peptide antigens for detection of hepatitis C virus (HCV) antibody, its composition, and method for using it," Amino Acids, Peptides, Proteins, 117, 1013 (1992) | | 34 | Virus-derived Peptides Containing | the HLA A2.1 Binding Motif," J. | | |
| hepatitis C virus (HCV) antibody, its composition, and method for using it," Amino Acids, Peptides, Proteins, 117, 1013 (1992) | | 35 | corresponding to the structural p | otein region of hepatitis C virus," | | |
| EXAMINER DATE CONSIDERED 02/23 98 | 4 | 36 | hepatitis C virus (HCV) antibody, its composition, and method for | | | |
| • | EXAMINER DATE CONSIDERED 02(23 98 | | | | | |

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|--|---|--|---|--|--|
| Form PTO-1449 Modified List of Patents and Publications Cited by Applicant (Use several sheets if necessary) | | | | | |
| | U.S. Department of Commerce Patent and Trademark Office | | | | |
| Docket No.: | | Applicant: Chisari et al. | | | |
| 329368-101A | | | | | |
| Serial No.: 08/854 | 4,825 | Filing Date: May 12, 1997 | Group: 1813 | | |
| OTHER DOCUME | NTS (Inc | luding Author, Title, Date, Pertine | | | |
| \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ | 37 | Kita et al., "HLA B44-restricted cytotoxic T lymphocytes recognizing an epitope on hepatitis C virus nucleocapsid protein," lmmunochem. , 120, 657 (1994) | | | |
| | 38 | Hahn et al., 1992, "CD8+ T cell recognition of an endogenously processed epitope is regulated primarily by residues within the epitope," J. Exp. Med. 176:1335-1341. | | | |
| | 39 | Eisenlohr et al., 1992, "Flanking sequences influence the presentation of an endogenously synthesized peptide to cytotoxic T lymphocytes," <u>J. Exp. Med.</u> 175:481-487 | | | |
| | 40 | Del Val et al., 1991, "Efficient processing of an antigenic sequence for presentation by MHC Class I molecules depends on its neighboring residues in the protein," Cell 66:1145-1153 | | | |
| | 41 | Hansen et al., 1993, "The major histocompatibility complex, in Fundamental Immunology," Paul, ed., Raven Press, New York, NY pp: 577-628 | | | |
| | 42 | Koziel et al., 1993 "Hepatitis C virus (HCV)-specific cytotoxic T lymphocytes recognize epitopes in the core and envelope proteins of HCV," J. Virol., 67(12):7522-7532 | | | |
| | 43 | Monaco, J., 1992, "A molecular model of MHC class-l-restricted antigen processing," Immunol. Today 13(5):173-179 | | | |
| | 44 | Kita et al., 1993, "HLA-B44 restricted cytotoxic T lymphocytes recognizing an epitope on hepatitis C virus nucleocapsid protein," Hepatol. 18(5):1039-1044 | | | |
| | 45 | Reece et al., 1993, "Mapping the major human T helper epitopes of tetanus toxin," <u>J. Immunol.</u> 151:6175-6184 | | | |
| | 46 | Shirai et al., 1992 "Broad recognition of cytotoxic T cell epitopes from the HIV-1 envelope protein with multiple class I histocompatibility molecules," J. Immunol. 148:1657-1667 | | | |
| | 47 | | cyte response to hepatitis C virus fection," <u>Gastroenterol.</u> 104:580- | | |
| | 48 | Koff, R., 1993, Gastroenterol. 10 | <u>04</u> :1228-1229 | | |
| 4 | 49 | Prince, A., 1994, FEMS <u>Microbiol. Rev.</u> <u>14</u> :273-278 | | | |
| EXAMINER 2 | \ | DATE CONSIDERED 62 23 9 | 8 | | |

| | <u> </u> | | Sheet 5 of 5 | | |
|--|----------|---|-----------------|--|--|
| Form PTO-1449 Modified List of Patents and Publications Cited by Applicant (Use several sheets if necessary) | | | | | |
| U.S. Department of Commerce Patent and Trademark Office | | | | | |
| Docket No.: | | Applicant: Chisari et al. | | | |
| 329368-101A | | | | | |
| Serial No.: 08/854 | 4,825 | Filing Date: May 12, 1997 | Group: 1813 | | |
| OTHER DOCUME | NTS (Inc | luding Author, Title, Date, Pertine | nt Pages, Etc.) | | |
| 12 | 50 | Penna et al., 1991, "Cytotoxic T Lymphocytes Recognize an HLA-A2-restricted Epitope within the Hepatitis B Virus Nucleocapsid Antigen," J. Exp. Med. 174:1565-1570 | | | |
| | 51 | Nayersina et al., 1993, "HLA A2 Restricted Cytotoxic T Lymphocyte Responses to Multiple Hepatitis B Surface Antigen Epitopes during Hepatitis B Virus Infection," <u>J. Immunology</u> 150:4659-4671 | | | |
| | 52 | Lopez de Castro, 1989, "HLA-B27 and HLA-A2 subtypes: structure, evolution and function," <u>Immunol. Today</u> , <u>10</u> :239-246 | | | |
| | 53 | Bertoletti et al., 1991, "HLA class I-restricted human cytotoxic T cells recognize endogenously synthesized hepatitis B virus nucleocapsid antigen," Proc. Natl. Acad. Sci, USA 88:10445-10449 | | | |
| | 54 | Shirai et al., 1994, "An Epitope in Hepatitis C Virus Core Region Recognized by Cytotoxic T Cells in Mice and Humans," J. Virol., 68:3334-3342 | | | |
| | 55 | Battegay, et al., 1995, "Patients with Chronic Hepatitis C Have Circulating Cytotoxic T Cells Which Recognize Hepatitis C Virus-Encoded Peptides Binding to HLA-A2.1 Molecules," <u>J. Virol.</u> 69:2462-2470. | | | |
| • | 56 | Koziel et al., 1995, "HLA Class I-restricted Cytotoxic T Lymphocytes Specific for Hepatitis C Virus," <u>J. Clin. Invest.</u> <u>96</u> :2311-2321 | | | |
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